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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,665	04/11/2002	Sybille Frank	0475-0204P	4705

26813 7590 01/03/2007
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EXAMINER

LOPEZ, CARLOS N

ART UNIT	PAPER NUMBER
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1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/049,665

Applicant(s)

FRANK ET AL.

Examiner

Carlos Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-21 and 34-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-21, 34-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/13/06</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-18, 20-21 and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hintersehr (US 5,702,650) in view of Filser et al All Ceramic Dental Bridges, pages 165-189. Hintersehr discloses a method of making dental ceramic prosthesis. Hintersehr teaches of forming a presintered material and then dimensioning through a milling process prior to being densely vitrified (See bridging paragraph of Col. 2-3 and claims 1 and 3 of Hintersehr). Hintersehr is silent disclosing the raw breaking resistance of the pre-sintered material. However, the composition of the presintered material of Hintersehr meets the claimed composition as recited in instant claim 34. Hence, a person of ordinary skill, at the time the invention was made, would reasonably deem the claimed raw breaking resistance as shared mechanical property by Hintersehr.

Hintersehr is also silent in rough and fine milling of the presintered material. However, Filser teaches of rough and fine milling of the presintered material prior to fully sintering the material at a temperature of 1500°C, see pages 168-170. Filser teaches of rough and fine machining prior to sintering allows for easy machining of the presintered material.

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At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have fine and rough milled the presintered blanks of Hintersehr as taught by Filser in order to easily provide a dental prosthesis without the complications of milling a hardened sintered material.

As for claim 20, the machining of the material in and out of contact of the tooth stump would be expected in order to provide a dental prosthesis that properly fits inside the dental patient.

As for claim 35, the direct machining of the enlarged model of the material would require a CAD/CAM software to control the machinery.

As for claim 36, page 173 of Filser notes that a technician can reprocess the fully sintered and machined material to provide its final dimensions.

As for claims 37-39, Filser teaches of pre-sintering the material to 850°C, see page 168.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hintersehr (US 5,702,650) in view of Filser et al All Ceramic Dental Bridges, pages 165-189 and in further view of Filser, All ceramic Dental Bridge slide presentation.

Hintersehr and Filser papers do not disclose the type of machine used for processing the dental prosthesis. However, Filser's slide presentation specifies the type of machine to use for rough and fine milling of the presintered blank. As noted in page 3 subheading "Machining", Filser notes the claimed parameters of the milling machine.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to use the milling machine as noted in Filser's slide to provide the

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means for making a dental prosthesis derived from the combined teachings of Filser and Hintersehr.

Response to Arguments

Applicant's arguments filed 10/13/06 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues against the Hintersehr by noting that the raw breaking resistance of the blank is a result of not only composition of the blank but also its sintering time and temperature.

Applicant also argues that Filser et al fails to disclose the claimed raw breaking resistance of the pre-sintered material.

The rejection is based on the combined teachings of Hintersehr and Filser. Hintersehr teaches the general principle that shaping the dental prosthesis prior to sintering provides advantages over the prior art. The principle taught by Hintersehr is followed Filser noting of fine and rough machining a pre-sintered material prior to sintering.

Applicant argues that Hintersehr does not disclose the claimed raw breaking resistance because the breaking resistance is also dependent on the sintering time and

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temperature. Assuming that applicant assertion is correct, the combined teachings of Hintersehr and Filser still envisage the claimed invention. Applicant fails to recognize, as noted above in regards to claims 37-39, that Filser provides for the same sintering time and temperature.

A person of ordinary, recognizing that the Hintersehr mirrors the composition claimed by applicant and is provided with the same heat treatment as taught by Filser, would reasonably deduce that the combined teachings provide for the claimed raw breaking resistance.

The combined teachings of Hintersehr and Filser provides for a blank material having the claimed composition be subjected to a pre-sintering step with the claimed temperature and time profile. As pointed out by applicant that raw breaking resistance is not only based on composition but also sintering profile, a profile taught by Filser, it would appear that applicant agrees that the combined teachings of Hintersehr and Filser do indeed provide a pre-sintered material having the claimed raw breaking resistance.

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

"When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the

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prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 562 F.2d at 1255, 195 USPQ at 433. See also Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Applicant has not provided any evidence on record, aside from the allegation that raw breaking is dependent on the temperature and sintering time, showing that the prior art products do not necessarily possess the characteristics of the claimed product.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to be 'AZ' followed by a long horizontal stroke.

CL